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**Amendments to the Drawings:**

The attached sheets of drawings, i.e., sheets 3/8, 4/8, and 6/8, include changes to Figures 5, 6, and 8. These sheets replace the original sheets filed with this application.

As discussed below in the Remarks section of this Amendment, the only differences from the original sheets are that the redrawn and annotated versions of Figures 5, 6 and 8 which appeared in applicants' January 3, 2007 Amendment have been substituted for the original figures. Figure 4 on sheet 3/8 has not been changed.

Substitute Figures 5, 6, and 8 are identical to those considered by the Examiner during the telephone interview conducted on May 30, 2008, except that the word "coil" used in the annotations of the January 3rd Amendment has been changed to "coil element" since that is the terminology used in applicants' claims. As acknowledged by the Examiner during the interview, no new matter is added by this substitution because the redrawn and annotated drawings merely help to explain the arguments applicants are making for patentability and show the same structure originally disclosed in this application.

The Attachment contains: Replacement Sheets 3/8, 4/8, and 6/8.

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**REMARKS**

The undersigned attorney would like to thank Examiner Fetzner for the helpful telephone interviews conducted on May 28, 2008 and May 30, 2008.

During the May 28th interview, the finality of the February 8, 2008 Office Action was discussed. The undersigned explained that applicants' June 19, 2007 Amendment amended only the drawings of this application, with no amendments having been made to the claims. As to U.S. Patent No. 4,763,074, cited in the February 8th Office Action, that reference was identified by the Examiner, not submitted by applicants. In view of these facts, the undersigned requested that the Examiner reconsider the finality of the February 8th Office Action based on the guidelines of MPEP § 706.07(a).

In connection with that request, during the interview, the Examiner checked her computer records for this application and found that those records indicate both a non-final and a final status for the application. The undersigned also checked the public PAIR database and likewise found records which indicate both final and non-final status for the application. In addition, the Examiner and the undersigned discussed the possibility that applicants' June 19, 2007 Amendment could have been viewed as a supplemental amendment to applicants' January 3, 2007 Amendment, rather than a response to the intervening March 19, 2007 Office Action.

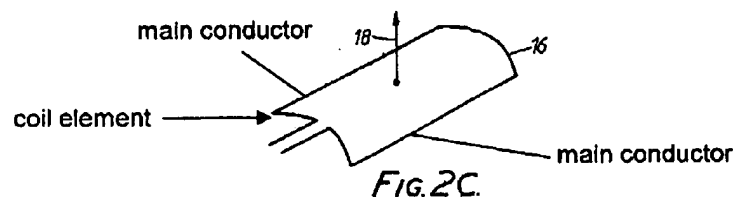
Based on all these considerations, the Examiner indicated that if further action is required in this application, she would reconsider the finality of the February 8th Office Action and that she expected that the finality would be withdrawn.

The telephone interview conducted on May 30th was directed to the newly-cited reference of the February 8th Office Action (i.e., U.S. Patent No. 4,763,074; the Fox reference), as well as to applicants' claim language and applicants' drawings. The undersigned explained that in the terminology of the present application, Fox uses four coil elements (12,12,14,14) grouped in two coil pairs (the 12,12 pair and the 14,14 pair). The two coil elements identified by the reference number 12 are connected to one

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another in series (and oppositely wound so that their magnetic fields point in the same direction), as are the two coil elements identified by the reference number 14 (see Fox's Figure 1).

The undersigned then directed the Examiner's attention to the fact that applicants' independent Claim 1 refers to "electrically separate" coil elements, not to electrically connected coil elements. With reference to Fox's Figures 1, 2A, 2B, and 2C, the undersigned further explained that each of Fox's four coil elements has two main conductors. Significantly, the main conductors of those coil elements are not located on "opposite sides" of the space in which the magnetic field is generated as required by Claim 1. Rather, as set forth at column 5, lines 19-22, of Fox and as shown by the following annotated copy of Fox's Figure 2C, these main conductors are separated by 120°:



As such, the main conductors of Fox's coil elements are clearly not opposite to one another as called for by Claim 1, as well as by applicants' other independent claims.

In order to facilitate the discussion of the term "coil element" as used in applicants' claims, the undersigned directed the Examiner's attention to the redrawn and annotated copies of applicants' Figures 5, 6, and 8 which appear on pages 11 and 12 of applicants' January 3, 2007 Amendment. Using these drawings, the undersigned demonstrated to the Examiner the differences between applicants' structure and that of Fox, i.e., the undersigned showed that unlike the main conductors of applicants' coil elements, the main conductors of Fox's coil elements are not located on opposite sides

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of the space in which the magnetic field is generated, as required by applicants' Claim 1 and other independent claims.

The Examiner felt that the drawings of the January 3rd Amendment were sufficiently helpful in explaining applicants' invention and the differences between that invention and the prior art that she recommended substituting those drawings for the drawings originally filed with this application. The Examiner said that such a substitution would not constitute new matter because the redrawn and annotated drawings merely help to explain the arguments being made for patentability and show the same structure originally disclosed in this application. The undersigned said that the recommended substitution would be made and so as to provide a consistent set of annotations, the word "coil" used in the January 3rd Amendment would be changed to "coil element" since that is the terminology used in applicants' claims.

Submitted herewith are replacement drawing sheets 3/8, 4/8, and 6/8 for this application. The only differences from the original sheets are that the redrawn and annotated versions of Figures 5, 6 and 8 which appeared in applicants' January 3rd Amendment have been substituted for the original figures. These substitute figures are identical to those considered by the Examiner during the May 30th interview, except for the change in the annotations from "coil" to "coil element" discussed above. Applicants respectfully request approval and entry of these substitute drawings into this application.

Once the difference between applicants' structure and that of Fox had become clear, the May 30th interview turned to a review of applicants' claim language. The above amendments to the claims embody the changes recommended by the Examiner.

In particular, each of applicants' independent Claims 1, 7, and 17 now require a space in which there is a homogeneous static magnetic field and a plurality of individual coil elements, each of which:

- (a) is electrically separate from each of the other individual coil elements,  
and
- (b) has a pair of main conductors that:

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- (i) extend generally parallel to the direction of homogeneous static magnetic field; and
- (ii) are located on opposite sides of the imaging space in a single plane which passes through the middle of the space.

As explained in applicants' specification, as a result of this arrangement, the maximum sensitivity of each coil element is near the middle of the imaging space. See, for example, paragraph [0013] of applicants' published application. Fox does not disclose or suggest such a structure or the benefits that arise therefrom.

Applicants and the undersigned attorney would again like to thank Examiner Fetzner for her time and effort in discussing this application during the May 28th and May 30th interviews. The foregoing amendments to the claims and drawings, as well as the foregoing comments, are believed to put this application in condition for allowance. However, if any issues remain, the Examiner is requested to contact the undersigned so that the prosecution of this application can be completed as expeditiously and efficiently as possible.

Respectfully submitted,

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